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(54) Belts for compliant calendering

(57) A calender belt for the compliant calendering of a paper web includes an endless base substrate, a staple fiber batt attached to at least the outside of the endless base substrate, and a polymeric resin material totally impregnating the fiber/base composite structure comprising the endless base substrate and the staple fiber batt to a substantially uniform depth. That depth may be such that the polymeric resin material does not reach the base substrate, or partly or completely impregnates the base substrate. A layer of polymeric

resin material is built up upon the staple fiber material to a predetermined thickness. Once the polymeric resin material is cured, it is ground to a desired smoothness without exposing any fiber on the ground surface. That the penetration of the polymeric resin material into the staple fiber batt, and possibly into the base substrate, is to a uniform depth enables the calender belt to provide a uniform pressure pulse as it passes with a paper web through the nip in a compliant calender.

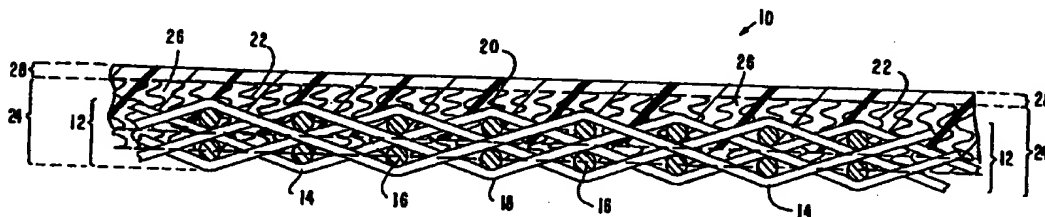


FIG. 1

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18 December 1998	Examiner De Rijck, F
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